I. Basic Information:

Manufacturer: RADIATOR SPECIALTY COMPANY  
Contact: Robert Geer
Address: 600 RADIATOR ROAD  
Information Telephone Number: 704-688-3430
City, ST Zip: INDIAN TRAIL, NC 28079  
Emergency Contact: Rocky Mountain Poison Control Center
Country:  
Emergency Telephone Number: 303-623-5716
Emergency Restrictions:  

Product Name: PUNCTURE SEAL INSTANT TIRE REPAIR (UPC: 078698131566)
MSDS No.: M1118

Issue Date: 01/03/2007  
Supersedes Date: 11/16/2005

II. Hazards Identification:

EMERGENCY OVERVIEW
Caution: Eye and Skin Irritant. Contents Under Pressure.
Level 1 Aerosol

OSHA Regulatory Status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Health Effects

Route(s) of Entry:
Absorption, Inhalation, and Ingestion.

Health Hazards (Acute and Chronic):
See signs and symptoms below

Signs and Symptoms:
Eye Contact: Direct spray of vapors may be irritating or harmful to eyes.
Skin Contact: Product may cause irritation due to defatting of skin.
Inhalation: High concentration of vapors may irritate nose and throat and cause headaches and nausea.
Ingestion: Can cause irritation, gastric disturbances, nausea.

Medical Conditions Generally Aggravated by Exposure:
None known

Other Health Warnings:
None known

Potential Environmental Effects
Not Available

III. Composition/Information on Ingredients:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>% Range</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>811-97-2</td>
<td>20-40</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>10-30</td>
<td></td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>1336-21-6</td>
<td>0-1</td>
<td></td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>107-21-1</td>
<td>1-9</td>
<td></td>
</tr>
<tr>
<td>Latex</td>
<td>34149-92-3</td>
<td>3-10</td>
<td></td>
</tr>
</tbody>
</table>

IV. First Aid Measures:

Emergency and First Aid Procedures:
Eye Contact: Flush eyes with water for 15 minutes while lifting upper and lower eyelid. Get prompt medical attention.
Skin Contact: Wash with soap and water. If irritation persists, get prompt medical attention.
Inhalation: Move to fresh air. If breathing becomes difficult get prompt medical attention.
Ingestion: Drink water or milk. Call Poison Control Center, physician, or hospital emergency room immediately.
Note to Physicians:  
N/A

V. Fire Fighting Measures:

**Suitable Extinguishing Media:**  
Water Fog, Foam, Carbon Dioxide, Dry Chemical

**Unsuitable Extinguishing Media:**  
Wear self-contained positive pressure breathing apparatus and protective clothes. Cool containers with a water fog. Do not use forced water stream as this could cause the fire to spread. Use shield to protect from rupturing and venting containers.

**Products of Combustion:**  
Contents are under pressure. At elevated temperatures, containers may vent or burst violently, causing serious injury.

**Protection of Firefighters:**  
Wear protective clothes and equipment.

VI. Accidental Release Measures:

**Personal Precautions:**  
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

**Environmental Precautions:**  
Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred.

**Methods for Containment:**  
Dike or contain spill and absorb with inert materials (sand, sawdust, absorbent sweeping compounds, rags, etc).

**Methods for Cleanup:**  
Neutralize remaining traces of material and flush with water followed by liberal covering with sodium bicarbonate. All clean-up material should be removed and placed in approved containers for disposal.

**Other Information:**  
Rinse water may be disposed of down a sanitary sewer system if authorized by the local municipality.

VII. Handling and Storage:

**Handling Precautions:**  
Handling: Use with adequate ventilation and proper protective equipment. Do not use or store near fire, sparks, or flame. Do not puncture or incinerate container. Exposure to temperatures above 120° may cause container to vent, rupture, or burst.

**Storage Precautions:**  
Store in cool, dry, well-ventilated area away from acids and oxidizing agents.

VIII. Exposure Controls/Personal Protection:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol</td>
<td>50 ppm</td>
<td>100 mg/m3</td>
<td>Not Available</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>25 ppm</td>
<td>25 ppm</td>
<td>Not Available</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>50 ppm (TWA)</td>
<td>25 ppm</td>
<td>Not Available</td>
</tr>
<tr>
<td>Latex</td>
<td>N/E</td>
<td>N/E</td>
<td>Not Available</td>
</tr>
<tr>
<td>1,1,1,2, Tetrafluoroethane</td>
<td>N/E</td>
<td>N/E</td>
<td>1000 ppm (TWA)</td>
</tr>
</tbody>
</table>

**Engineering Controls:**  
Use with adequate ventilation. If TLV is exceeded, wear NIOSH approved respirator.

**Personal Protective Equipment:**  
See Section 2 for applicable exposure limits. For prolonged exposure wear protective safety glasses, gloves, and apron.
### IX. Physical and Chemical Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>212 F</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>N/D</td>
</tr>
<tr>
<td>Solubility In Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Flash Point</td>
<td>None</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/D</td>
</tr>
<tr>
<td>Vapor Density (AIR = 1):</td>
<td>&gt;1</td>
</tr>
<tr>
<td>pH Range</td>
<td>10.2 - 11.6</td>
</tr>
<tr>
<td>Decomposition Temp</td>
<td>N/A</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1):</td>
<td>1.00</td>
</tr>
<tr>
<td>Other Information</td>
<td>VOC Content: 16%</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>30°F</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1):</td>
<td>0.2</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>TCC</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>White milky liquid with slight ammonia odor</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg.)</td>
<td>N/D</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>N/D</td>
</tr>
<tr>
<td>Auto-Ignition Temp</td>
<td>N/A</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>N/A</td>
</tr>
<tr>
<td>Physical and Chemical Properties</td>
<td></td>
</tr>
<tr>
<td>Stability</td>
<td>Stable</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>See incompatible materials</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td>Strong acids and oxidizers</td>
</tr>
<tr>
<td>Possibility of Hazardous Reactions</td>
<td>Will not occur</td>
</tr>
<tr>
<td>Toxicalogical Information</td>
<td>N/D</td>
</tr>
<tr>
<td>Ecological Information</td>
<td>N/D</td>
</tr>
<tr>
<td>Disposal Considerations</td>
<td>DISPOSAL: This container may be recycled in aerosol recycling centers when empty. Before offering for recycling, empty the can by using the product according to the label. DO NOT PUNCTURE! If recycling is not available, wrap the container and discard in the trash. Dispose of unused product in accordance with all local, state government and federal laws and regulations.</td>
</tr>
<tr>
<td>Transport Information</td>
<td>Shipping Name: Not Available</td>
</tr>
<tr>
<td>DOT Hazard Class</td>
<td>Not Available</td>
</tr>
<tr>
<td>UN/NA#:</td>
<td>Not Available</td>
</tr>
<tr>
<td>MSDSPackGroup</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

X. Stability and Reactivity:

- **Stability:** Stable
- **Conditions to Avoid:** See incompatible materials
- **Incompatible Materials:** Strong acids and oxidizers
- **Hazardous Decomposition Products:** Combustion products from fire: products of carbon Oxides, Nitrogen Oxides, Halogen acids.
- **Possibility of Hazardous Reactions:** Will not occur

XI. Toxicological Information:

- **Toxicological Information:** N/D

XII. Ecological Information:

- **Ecological Information:** N/D

XIII. Disposal Considerations:

- **Disposal Considerations:**
- **Transport Information:**
  - **Shipping Name:** Not Available
  - **DOT Hazard Class:** Not Available
  - **DOT Subsidiary Hazard Class:** Not Available
  - **UN/NA#:** Not Available
  - **MSDSPackGroup:** Not Available
  - **Transportation Information:**

MSDS - Material Safety Data Sheet
DOT Hazard Class: ORM-D
Shipping Name: Consumer Commodity

The DOT description is provided to assist in the proper shipping classification of this product and may not be suitable for international and air shipping purposes.

ICAO/IATA (US)
Shipping Name: Aerosols
Class: 2.1
UN number: UN1950

International:

ICAO/IATA
Shipping Name: Aerosols
Class: 2.1
UN number: UN1950

IMDG
Shipping Name: Aerosols
Class: 2.1
UN number: UN1950

XV. Regulatory Information:

See Section 2 for SARA Reportable Chemicals.

USA TSCA: All components of this material are listed on the US TSCA Inventory.

XVI. Other Information:

Chemical State: Liquid X Gas X Solid
Chemical Type: Pure X Mixture

Hazard Category: Acute X Chronic Pressure X Fire X Reactive

Additional Manufacturer Warnings:

Do not used in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS!

N/E: Not Established
N/D: Not Determined
N/A: Not Applicable
N/AV: Not Available

Additional Product Information:

While Radiator Specialty Company believes this data is accurate as of the revision date, we make no warranty with respect to the data and we expressly disclaim all liability for reliance thereon. The data is offered solely for information, investigation, and verification. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this MSDS. The user is responsible for full compliance.